


MEMORANDUM

TO: Stephen E. West
Regional Administrator
Boise Regional Office

FROM: Robert E. Baldwin, Air Quality Engineer EIT 
Boise Regional Office

SUBJECT: T2-000036, Double D Service Center, Meridian, Idaho
Technical Analysis, Tier II Operating Permit No. 001-00168
Grain and Seed Cleaning and Bagging Plant

PURPOSE

The purpose for this memorandum is to satisfy the requirements of IDAPA 58.01.01 404.04 (*Rules for the Control of Air Pollution in Idaho*) (*Rules*) for Tier II operating permits.

PROJECT DESCRIPTION

This project is for the issuance of a Tier II operating permit (OP) for Double D Service Center (DD), located in Meridian. The emissions sources of the facility are:

- Unloading/Receiving
- Transferring material
- Cleaning
- Grinding
- Cyclone
- Loading

FACILITY DESCRIPTION

Double D Service Center (DD) operates a grain and seed cleaning and bagging facility. The facility receives between 1000 and 1200 tons of grain annually. Approximately 90 percent of the grain and seed received are just cleaned and bagged for animal feed or birdseed. The remaining 10 percent of the grain and seed are ground for animal feed.

An enclosed screw conveyor transports the grain from the receiving area up through elevator legs into bins. A screw conveyor unloads the bin and transports the grain up to elevator legs and delivers the grain to the grinder or the cleaner. After the major portion of the grain or seed is cleaned or ground, it is either mixed or bagged. The product from the grinder to be used for the animal feed is lifted by an enclosed airlift and delivered to the load out bins.

For Northern Ada County, the Department of Environmental Quality (DEQ) is currently developing a PM₁₀ Maintenance Plan to protect air quality and public health. Modeling analysis of Ada County demonstrates potential non-compliance with the ambient air quality standards for PM₁₀ (particulate matter with an aerodynamic diameter of 10 microns or less). The DEQ Boise Regional Office has identified DD as a facility that can assist DEQ in developing a PM₁₀ Maintenance Plan by cooperating with DEQ to develop a Tier II OP. Double D was identified as a facility which did not have nor require an OP, but has a large quantity of allowable PM₁₀ emissions not subject to permit limitations. According to the DEQ 1995 air emissions inventory, the facility's estimated allowable emissions are 125 tons/year. This facility's estimated actual emissions are 2 tons/year or considerably less. In this situation, limiting the facility to a level closer to actual emissions with a Tier II OP will assist DEQ in developing a PM₁₀ Maintenance Plan for Northern Ada County. For consistency with other permitted facilities in Ada County, the fugitive emissions had to be limited in the Tier II OP. The facility's maximum hourly throughput for most processes is 10 tons per hour. However, the maximum hourly throughput for the grinder and cleaner are limited within this permit to 5 tons per hour and 3 tons per hour respectively.

SUMMARY OF EVENTS

DEQ issued a certified letter on February 18, 2000, informing DD that DEQ will be issuing a Tier II OP limiting the facility's potential to emit. In addition, this letter stated the Tier II OP limited emissions would be used in the modeling analysis to demonstrate compliance in the Northern Ada County PM₁₀ Maintenance Plan. The emission inventory used in the Tier II analysis was received by DEQ on May 1, 2001.

DISCUSSION

1. Emission Estimates

This facility's emissions are both point source and fugitive. The point source emission is from the cyclone. The fugitive sources are from the activities associated with the cleaning and bagging of the grain and seed. By limiting the amount of grain and seed to be processed, the potential emissions from the facility are limited. The various activities listed in the Compilation of Air Pollutant Emission Factors for the various activities of grain handling are as follows:

- Unloading/Receiving
- Transferring material
- Cleaning
- Grinding
- Cyclone
- Loading

The uncontrolled emission estimate for PM₁₀ associated with the production of 1,200 tons during a 12 consecutive month period are 0.02 tons per year (T/yr). These are the emission limits for PM₁₀ stated within the permit.

2. Modeling

The primary source to be modeled for DD is the cyclone. The rest of the facility's emissions are basically associated fugitive emissions and the area exposed for vehicles is paved. The emission potential needs an enforceable limit to meet the needs of the Maintenance Plan. The 1995 emissions inventory indicates the amount of PM₁₀ modeled was two T/yr. A Tier II facility emission was set at two T/yr. The amount of emissions allowable as stated within the Appendix of the permit is 0.5 tons per year. Since this amount is below the acceptable modeled amount stated as allowable, no further modeling was done. This limit meets the guidance and the modeling requirement of the Northern Ada County PM₁₀ Maintenance Plan.

3. Area Classification

Double D Service Center of Ada County, Idaho, is located in AQCR 64 and Zone 11. Northern Ada County is non-attainment for carbon monoxide, and unclassified for PM₁₀. This area is attainment or unclassifiable for all other federal and state criteria air pollutants (i.e., nitrogen oxides, volatile organic compounds, and sulfur oxides).

4. Facility Classification

This facility is not a major facility as defined in IDAPA 58.01.01.006.55 and IDAPA 58.01.01.008.10. Facilities of this type are not designated facilities as defined by IDAPA 58.01.01.006.27. This facility is not subject to federal New Source Performance Standards or National Emission Standards for Hazardous Air Pollutants regulation. The Standard Industrial Classification code for grain mills is 5153. The Aerometric Information Retrieval System (AIRS) facility classification for this facility is "SM" because the uncontrolled potential to emit is greater than 100 T/yr.

5. Regulatory Review

This OP is subject to the following permitting requirements:

- | | | |
|----|---------------------------------|--|
| a. | <u>IDAPA 58.01.01.401</u> | Tier II Operating Permit |
| b. | <u>IDAPA 58.01.01.403</u> | Permit Requirements for Tier II Sources |
| c. | <u>IDAPA 58.01.01.404.01(c)</u> | Opportunity for Public Comment |
| d. | <u>IDAPA 58.01.01.404.04</u> | Authority to Revise or Renew Operating Permits |
| e. | <u>IDAPA 58.01.01.406</u> | Obligation to Comply |
| f. | <u>IDAPA 58.01.01.470</u> | Permit Application Fees for Tier II Permits |
| g. | <u>IDAPA 58.01.01.625</u> | Visible Emission Limitation |
| h. | <u>IDAPA 58.01.01.650</u> | General Rules for the Control of Fugitive Dust |

6. AIRS

AIRS/AFS¹ FACILITY-WIDE CLASSIFICATION² DATA ENTRY FORM

Air Program Description	SIP ³	PSD ⁴	NESHAP ⁵	NSPS ⁶	MACT ⁷	TITLE V	AREA CLASSIFICATION
							A – Attainment U – Unclassifiable N – Non-attainment
SO ₂ ⁸	B						U-Unclassifiable
NOx ⁹	B						U-Unclassifiable
CO ¹⁰	B						N-Non-attainment
PM ₁₀ ¹¹	SM						U – Unclassifiable
PM ¹²	SM						U-Unclassifiable
VOC ¹³	B						U-Unclassifiable
Total HAPs ¹⁴							
(Add additional lines if necessary.)							
VE/FE/FD ¹⁵	ND	ND	ND	ND	ND	ND	

1 **AIRS Aerometric Information Retrieval System**

2 **AIRS/AFS CLASSIFICATION CODES:**

- A = Actual or potential emissions of a pollutant are above the applicable major source threshold. For NESHAP only, class "A" is applied to each pollutant, which is below the 10 ton-per-year (T/yr) threshold, but which contributes to a plant total in excess of 25 T/yr of all NESHAP pollutants.
- SM = Potential emissions fall below applicable major source thresholds if, and only if, the source complies with federally enforceable regulations or limitations.
- B = Actual and potential emissions below all applicable major source thresholds.
- C = Class is unknown.
- ND = Major source thresholds are not defined (e.g., radionuclides).

3 **State Implementation Plan**

4 **Prevention of Significant Deterioration**

5 **National Emission Standards for Hazardous Air Pollutants**

6 **New Source Performance Standards**

7 **Maximum Achievable Control Technology**

8 **Sulfur Dioxide**

9 **Nitrogen Oxides**

10 **Carbon Monoxide**

11 **Particulate Matter with an aerodynamic diameter less than or equal to nominal ten micrometers**

12 **Particulate matter**

13 **Volatile Organic Compounds**

14 **Hazardous Air Pollutants**

15 **VE/FE/FD (visible emissions, fugitive emissions, and fugitive dust) are entered for compliance purposes only and do not require evaluation by the permit engineer.**

FEES

Fees apply to this facility in accordance with IDAPA 58.01.01.470. The facility is subject to permit application fees for this Tier II OP of \$500.

RECOMMENDATIONS

Based on the review of the application materials and all applicable state and federal regulations, staff recommends that DEQ issue the Tier II OP to Double D Service Center. An opportunity for public comment on the air quality aspects of the Tier II OP was provided in accordance with IDAPA 58.01.01.404.01.c. Staff members have notified the facility in writing of the required Tier II application fee of \$500.00. The permit will be issued upon receipt of the fee.

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cc: Siva Sanchez, Air Quality Division
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 Source File (001-00168)
 Reading File